Attorney Docket No: 15411-8007 U.S. Appl.: 10/562.401

#### REMARKS

Consideration of the amendments and remarks presented herein is respectfully requested.

#### I. Status of the Claims

Claims 1-8 and 42, 43-49, and 53 are pending.

Claims 9-41 and 50-52 are canceled

Claim 53 is new.

Applicants reserve the right to pursue at a later date in one or more continuing applications subject matter supported by the present disclosure, including subject matter which may be considered to be disclaimed herein.

#### II. Amendments to the Claims

Claim 1 has been amended to more clearly recite the features of the subject composition. Specifically, claim 1 has been amended to reflect the feature of a composition for storage and subsequent release of nitric oxide; basis for this feature is found in the specification at least at page 27, lines 11-13. The claim has also been amended to incorporate the feature of a pharmaceutically, nutraceutically or cosmetically acceptable carrier; basis for this feature is found in the specification at page 11, lines 7-12. The claim has also been amended to reflect the feature of extra-framework cations within the zeolite, where the extra-framework cations are effective to bind nitric oxide (see, e.g., specification, page 6, line 4 to page 9, line 2), such that upon exposure to moisture at body or room temperature, the nitric oxide is displaced by the moisture (water) and released. Support for this feature is found, for example, in the specification at page 9, lines 21-30.

<u>Claim 2</u> has been simplified to reflect particular extra-framework cations already recited in the pending claim.

<u>Claim 3</u> has been amended to recite extra-framework cations that comprise a transition metal; support for this feature is found in the specification, e.g., at page 5, lines 21-22

<u>Claim 4</u> has been amended to recite a zeolite having an LTA framework structure; basis for this feature is found in the specification, e.g., at page 7, lines 23-25.

<u>Claim 5</u> has been amended to depend from claim 4, and has therefore been amended to have proper antecedent basis.

<u>Claim 6</u> has been amended to possess proper antecedent basis in claim 1 from which it depends.

<u>Claim 7</u> has been amended to more clearly reflect the form and components of the recited composition.

<u>Claim 43</u> has been reworded to more clearly conform to the language of the specification; basis is found on page 9, lines 4-7.

<u>Claim 44</u> has been amended to recite an anhydrous composition; basis for this feature is found in the specification, e.g., at page 27, lines 13-16, and as provided for claim 43 above.

<u>Claim 53</u> finds support in the specification at, for example, page 9, line 31 to page 10, line 16.

No new matter has been added to the claims by virtue of the amendments presented herein.

## III. Claim Objections

Claim 44 is objected to under 37 CFR §1.75(c), as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. By virtue of the amendments to claim 44, it is submitted that this objection has been overcome.

# IV. Claim Rejections - 35 U.S.C. §112 Second Paragraph

Claims 1-8 and 42-52 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, it is the Examiner's position that the requirements for "a pharmaceutical, nutraceutical, or cosmetic carrier" would not be clearly understood by one of skill in the art. (The examiner has further stated that, for

the purposes of examination, the claims have simply been interpreted as requiring the presence of a carrier). The Applicant respectfully traverses the rejection of the claims under 35 U.S.C. §112, second paragraph, for at least the following reasons.

With respect to the instant rejection, the Examiner is reminded of the requirement to allow (or accept) claims having a reasonable degree of particularity and distinctness (MPEP 2173.02). Moreover, the definiteness of the claim language should be analyzed, not in a vacuum, but in light of (i) the content of the particular application disclosure, (ii) the teachings of the prior art, and (iii) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time of the invention. Finally, the Examiner is reminded that "a patent need not teach, and preferably omits, what is well known in the art". (Although cited with respect to enablement, see, e.g., In re Buchner, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984)).

Carriers for pharmaceutical, cosmetic and nutraceutical use are well known in the art. For example, the *Handbook of Pharmaceutical Excipients*, Eds. Rowe, R., Sheskey, P. and Owen, S.C., Pharmaceutical Press (2004), provides monographs on hundreds of pharmaceutical excipients. The *CRC Handbook of Food, Drug, and Cosmetic Excipients*, Ed. Smolinkske, S., CRC Press (1992) similarly provides a summary of inactive ingredients in pharmaceutical products, cosmetic products and food additives. Thus, it is submitted that one skilled in the relevant art would clearly understand the scope of the instant claims, when considered in view of the specification, along with the teachings of the prior art, absent any additional description regarding such carriers in the specification. Thus, it is submitted that the instant claims comply with the requirements 35 U.S.C. §112, second paragraph.

Withdrawal of the rejection of the claims under 35 U.S.C. §112, second paragraph, is respectfully requested.

# V. Claim Rejections - 35 U.S.C. §103

Rejection 1: Claims 1-4, 6-8, 42-44 and 50-52 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Zhang et al. (*Langmuir*, 1993, 9, pp. 2337-2343) in view of Wu (U.S. Patent No. 5.492.883).

Rejection 2: Claims 1-4, 6, 43, 44, 46 and 49-52 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yamamoto et al. (JP 08092051 A) in view of Zhang and Green et al. (US 5,814,666).

Rejection 3: Claims 1-4, 44, 45, 47, 48 and 50-52 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Barry et al. (US 2000/64506 A1) in view of Zhang and Green. (Based upon the remarks in the Office action, the undersigned is of the belief that the third reference applied in Rejection 3 is Green rather than Barry as stated under item 11 on page 8 of the Office action). Confirmation is respectfully requested.

Rejection 4: Claims 1, 5, 6, 44, 46 and 49-52 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yamamoto in view of Rudolf et al. (*Journal of Magnetic Resonance*, 2002, 155, pp. 45-56) and Green.

Rejection 5: Claims 1, 5, 44, 45, 47, 48 and 50-52 are stated under item 13, page 10 of the Office action, to be rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Barry et al. (US 2000/64506 A 1) in view of Zhang and Barry. (Based upon the remarks in the Office action under item 13, the undersigned is of the belief that the second reference is Rudolf rather than Zhang, and that the third reference applied in Rejection 5 is Green rather than Barry). Confirmation is respectfully requested.

This foregoing rejections are respectfully traversed for at least the following reasons.

## A. Applicant's Claims

The claims as currently presented are directed to a zeolite composition for storage and subsequent delivery of nitric oxide. The composition comprises a zeolite comprising extra-framework cations bound to nitric oxide and a pharmaceutically, nutraceutically or cosmetically-acceptable carrier. The extra-framework cations contained in the zeolite have a strong affinity for nitric oxide, such that the nitric oxide is released by displacement by water molecules upon exposure of the composition to moisture at room or body temperature.

The current claims are based, at least in part, on the inventors' discovery that upon partially or fully dehydrating a zeolite, one could thereby store nitric oxide by adsorption within the zeolite at the positions previously bound to the water molecules, such that upon subsequent contact of the NO-loaded zeolite with moisture, the nitric oxide is thereby released by displacement by the water molecules.

The zeolites of the claimed compositions possess extra-framework cations having a strong affinity for nitric oxide, such that the compositions are effective to store nitric oxide until needed (specification, page 5, lines 20-25; page 6, lines 18-25). Thus, the instant compositions are effective for storage and release of nitric oxide, e.g., for biological and medical applications (specification, page 27, lines 11-19).

Additional claims are directed to medical articles and cosmetic or personal hygiene products comprising a composition having the features set forth above.

#### B. Cited Art

Zhang, et al. (Langmuir 1993, 9, 2337-2243). Zhang describes the adsorption properties of NO on various metal ion-exchanged zeolites measured in a fixed bed adsorption apparatus. Zhang is principally concerned with the removal of nitric oxide from the environment, to address the problems of acid rain and air pollution caused by nitric oxide and its oxidized forms. The point of Zhang is to investigate the use of zeolites for selective adsorption of NO diluted in air by pressure swing adsorption (PSA).

As stated in Zhang, suitable adsorbents for PSA must possess a high capacity for reversible adsorption of NO (page 2337, second paragraph, column 1), such that NO is

adsorbed-desorbed reversibly (under PSA conditions). Reversible adsorption/desporption allows the PSA process to be carried out for an indefinite period of time, such that the zeolite adsorbent is regenerable (i.e., never or only slowly becomes spent).

In PSA studies, manipulation of *pressure* is used to control the adsorption (high pressure) and desorption (reduced pressure) of the selected gas. A typical PSA system involves a cyclic process where a number of connected vessels containing adsorbent material undergo successive pressurization and depressurization steps in order to produce a continuous stream of purified product gas. In the adsorption-desorption studies described by Zhang (page 2338, column 1), the temperature of the adsorbent was 195-373 K (373° K = 100° C). In temperature-programmed desorption (TPD) studies carried out on various metal ion-exchanged zeolites, the temperature ranged from 323 - 873° K (page 2338, first full paragraph, column 2 - far in excess of room or body temperature!

In looking at Zhang as a whole, first, Zhang has nothing to do pharmaceutical, nutraceutical or cosmetic compositions of any sort - rather, Zhang is concerned with identifying zeolites for use in selectively removing NO species from the environment by PSA. That is, the point of Zhang is the <u>adsorption</u> of NO rather than the <u>release</u> thereof in pharmaceutical and cosmetic compositions and the like. Indeed, the point of Zhang is the complete opposite of the Applicant's claims. Moreover, nowhere does Zhang describe a zeolite of any sort combined with a pharmaceutically, nutraceutically or cosmetically-acceptable carrier, nor is Zhang even remotely concerned with compositions for use in such areas. Indeed, the teachings and very focus of Zhang are in a field completely unrelated and distant from the instant claims.

Second, Zhang describes the reversible and irreversible adsorption/desorption of nitric oxide in certain zeolites only under conditions of extreme pressure and temperature. That is to say, the release of NO species described by Zhang is promoted only by extreme changes in pressure and temperature. Nowhere does Zhang suggest, nor is Zhang even remotely concerned with, *chemical displacement* of nitric oxide bound to the zeolite extra-framework cations by water, under any conditions, let alone at body or room temperature.

In sum, at best, Zhang is concerned with the potential of zeolites for removing nitric oxide(s) from the environment using pressure swing adsorption technology. There is absolutely nothing in Zhang that would lead one of skill in the art to the problem addressed by the instant claims (storage and delivery of nitric oxide for pharmaceutical, medical, cosmetic, and neutraceutical applications and the like), nor the solution provided - i.e., a composition comprising a zeolite having extra-framework cations strongly bound to nitric oxide such that release of the nitric oxide occurs by chemical displacement with water (i.e., moisture) under extremely mild conditions, i.e., at body or room temperature.

Wu et al. (US Patent No. 5,492,883). Wu describes a method of forming molecular sieves (e.g., zeolites) using aqueous emulsions of silicone resins rather than flammable solvents, and also describes the resulting monolith structures. Wu further describes water soluble binders useful for providing good zeolite extrudates using the method described (col 5, lines 52-63). Outside of its focus on zeolites, Wu is completely irrelevant to the instant claims, when considered either alone, or in combination with any one of more of the references described herein.

Yamamoto et al. (JP 08092051 A). Yamamoto describes a deodorizing composition having the features of resistance to decoloration, good deodorant properties, and good dispersibility (prior compositions are described as having an unacceptable roughness). The compositions of Yamamoto include (i) an antibacterial zeolite having all or part of its ion-exchangeable ions exchanged with ammonium ions and antimicrobial metal ions, and (ii) silicone (e.g., silicone oil or volatile silicone), blended together. At most, in terms of relevance to the Applicant's claims, Yamamoto describes a cosmetic composition comprising a zeolite. Nowhere does Yamamoto suggest zeolites effective to store and release nitric oxide, let alone zeolites comprising extra-framework metal ions that bind strongly to nitric oxide, wherein release of the bound nitric oxide occurs by exposure of the zeolite to moisture and subsequent displacement of the nitric oxide by water molecules at room or body temperature. There is nothing in Yamamoto suggestive of any

of a single of the Applicant's claims, when considered either alone or in combination with any one of more of the references described herein.

Green et al. (U.S. Patent No. 5,814,666). Green is concerned with providing compounds capable of releasing nitric oxide in an aqueous solution. The compounds of Green are nitric oxide-nucleophile complexes; illustrative complexes described include those having nucleophiles that are residues of a primary amine, or a secondary amine; or in which the nitric oxide is bound to a polymer such as polystyrene, polypropylene, polyurethanes and the like; Green also describes vesicles the encapsulate such nitric oxide-nucleophile complexes. Table 1 provides chemical formulas of complexes that are reported to be nitric oxide generators. Nowhere does Green suggest, in any fashion, a zeolite of any sort, let alone recognize or suggest particular properties effective for storing and releasing nitric oxide from a zeolite material. Green fails to suggest the subject matter of any one or more pending claims, when considering either singly, or in combination with any one or more of the references relied upon by the Examiner.

Barry et al. (WO 00/64506). Barry is directed to a medical stent having an inorganic antimicrobial agent on its surface such as a zeolite. The antimicrobial agent may be applied as a coating or blended with a polymer resin that forms the stent. Illustrative zeolites such as A-type, Y-type, T-type, sodalite, mordenite, analcite, and the like are described (page 13, lines 2-6). Preferred zeolites are described to contain antibiotic metal ions, such as those obtained through ion-exchange. Barry is not concerned with delivery of nitric oxide by zeolites of any sort, nor does Barry describe or even remotely suggest a zeolite, or any other material for that matter, for storing and subsequently releasing nitric oxide - from a stent or from any other article, let alone a mechanism by which such storage and release could effectively be achieved. As with the other references, Barry fails to render obvious even a single of the Applicant's claims, when considered alone or in combination with any one or more of the references cited by the Examiner.

Rudolf et al. (J. Magnetic Resonance, 155, 45-56 (2002)). The article by Rudolf provides a study of adsorption and desorption behavior of nitric oxide in ZSM-5 and A-type zeolites by electron paramagnetic resonance or EPR. The NO molecules are used as a probe to characterize the Lewis acid properties of sodium cations (weak Lewis sites) and aluminum defects (strong Lewis sites) in various zeolites; the results are used to determine desorption energies at various adsorption sites in the zeolites. The zeolites examined were either non-ion exchanged (H-ZSM-5) or in their sodium form (Na-ZSM-5; Na-A).

The paper by Rudolf utilizes NO solely as a probe molecule, due to its magnetic properties and suitability for study by EPR spectroscopy. Rudolf has nothing to do with the delivery or storage of NO in zeolites, or in any other sort of material, for pharmaceutical, medical or any other purpose. Further, the adsorption and release of NO in the gas phase in the zeolites examined is facilitated by a change in temperature rather than by a chemical displacement reaction with water molecules.

As in the case of the other references relied upon, there is nothing in Rudolf that would suggest to one of skill in art, the subject matter of even one of the Applicant's pending claims, when considered either alone, or in combination with one or more of the cited references discussed in this section.

### C. Arguments

As is well known by the Examiner, and as reiterated by the Supreme Court in KSR International Co. v. Teleflex, Inc., 82 USPQ2d 1385, 1391 (2007), the framework that controls an objective analysis for determining whether claims are obvious is stated in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966). Specifically, the Graham factors include:

- (i) determining the scope and content of the prior art:
- (ii) ascertaining the differences between the claimed invention and the prior art:
- (iii) resolving the level of ordinary skill in the pertinent art; and

# (iv) evaluating any objective indicia of nonobviousness.

The question to be asked is not whether the differences between the claims and the prior art would be obvious, but whether the claims as a whole would be obvious. See, e.g., MPEP, Section 2141.02 (1), as well as Stratoflex, Inc. v Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983) as referenced therein.

The issue in the instant analysis is whether one skilled in the art, having any one of the following combination of references in hand: (1) Zhang et al. (Langmuir, 1993, 9, pp. 2337-2343) in view of Wu (U.S. Patent No. 5,492,883); (2) Yamamoto et al. (JP 08092051 A) in view of Zhang and Green et al. (US 5,814,666); (3) Barry et al. (US 2000/64506 A1) in view of Zhang and Green; (4) Yamamoto in view of Rudolf et al. (Journal of Magnetic Resonance, 2002, 155, pp. 45-56) and Green, or (5) Barry et al. (US 2000/64506 A 1) in view of Rudolf and Green, along with commonly available knowledge to one of skill in the art, would have arrived at the subject matter currently recited in the Applicants' claims as presented herein. That is to say, the question to be considered is the following: Is there anything in the combination of prior art references relied upon by the Examiner that would have prompted one of skill in the art at the time of the invention to arrive at the subject matter recited in the Applicant's claims? The Applicant respectfully submits that the answer to this question is "no". There is nothing in the combination of cited art references outlined in Rejections 1-5, absent the Applicant's disclosure, to bridge the gap between the prior art and the claims currently under consideration to thereby result in the subject matter of the Applicant's claims.

In considering the characterizations of the cited art provided in the preceding section, along with the requirements for establishing a case of obviousness, it can be seen that there is nothing in the combinations of references relied upon by the Examiner that is even remotely suggestive of the Applicant's claimed subject matter. In sum, the combination of references is in no way suggestive of the content of the Applicant's claims as a whole.

Rejection 1: In this rejection, the Examiner has asserted claims 1-4, 6-8, 42-44 and 50-52 unpatentable over Zhang et al. in view of Wu (U.S. Patent No. 5,492,883). In considering the combination of Zhang and Wu, it can be seen that neither reference is concerned in the slightest or even remotely suggests a composition for use in storing and releasing nitric oxide in the manner and under the conditions recited in the Applicant's claims. Rather, Zhang is concerned with examining the suitability of zeolites for use in removing NO from the environment by pressure swing adsorption (PSA). The process examined. PSA, utilizes extreme swings in pressure (and in this case, temperature) to effect absorption and desorption of nitric oxide from the zeolites studied. Indeed, the very point of Zhang is to study the selective removal of certain gases such as NO from mixtures of gases. There is nothing in the zeolites or experiments described by Zhang to suggest a composition of the type claimed. Specifically, Zhang fails to suggest (i) combination of a zeolite with a pharmaceutically, nutraceutically or cosmetically-acceptable carrier, (ii) a zeolite comprising extra-framework atoms effective to bind and store nitric oxide, whereby release of the nitric oxide occurs by chemical displacement by water molecules upon exposure of the composition to moisture, and (iii) chemical displacement of nitric oxide from a zeolite of any sort under room or body temperature conditions.

That is to say, Zhang fails to suggest a composition having the features of claims 1-4, 6-8, 42-44 and 50-52. The Examiner relies upon Wu to make up for certain deficiencies in Zhang, such as the use of a binder or carrier. While Wu does describe certain binders for use in preparing monoliths, Wu fails to make up for the basic failures of Zhang. That is to say, even when considered in combination, Zhang and Wu fail to suggest the composition embodied in the rejected claims for the reasons set forth in the preceding paragraph.

Thus, it is submitted that claims 1-4, 6-8, 42-44 and 50-52 as provided herewith are non-obvious in view of Zhang and Wu. Withdrawal of Rejection 1 is therefore respectfully requested.

Rejection 2: In this rejection, the Examiner has asserted claims 1-4, 6, 43, 46, and 49-52 to be unpatentable over Yamamoto et al. (JP 08092051 A) in view of Zhang and Green et al. (US 5.814,666).

The deficiencies of Zhang are described in detail above. The shortcomings of Zhang as described above apply equally here. Yamamoto describes a deodorizing composition which comprises (i) an antibacterial zeolite having all or part of its ion-exchangeable ions exchanged with ammonium ions and antimicrobial metal ions, and (ii) silicone (e.g., silicone oil or volatile silicone), blended together. Green is concerned with providing compounds capable of releasing nitric oxide in an aqueous solution, where such compounds are nitric oxide-nucleophile complexes that are completely unrelated to the zeolites of the Applicant's claims. As in the foregoing rejection, Yamamoto and Green fail to make up the deficiences of Zhang, since even when considered in combination, the references fail to suggest a composition having the features recited in claim 1 (or in any claim dependent thereon or which incorporates the features thereof).

Indeed, neither Yamamoto nor Green suggests zeolites effective to store and release nitric oxide, let alone zeolites comprising extra-framework metal ions that bind strongly to nitric oxide, wherein release of the bound nitric oxide occurs by exposure of the zeolite to moisture and subsequent displacement of the nitric oxide by water molecules at room or body temperature. Thus, the combination of Zhang, Yamamoto and Green similarly fails to render obvious the subject matter of claims 1-4, 6, 43, 46, and 49-52 as presented herein.

Withdrawal of Rejection 2 is therefore respectfully requested.

Rejection 3. In this rejection, the Examiner has rejected claims 1-4, 44, 45, 47, 48 and 50-52 under 35 U.S.C. §103(a) as allegedly unpatentable over the combination of Barry et al. (US 2000/64506 A1) in view of Zhang and Green. All three of the references have been characterized in detail in the preceding paragraphs.

To review, Barry is directed to a medical stent having an inorganic antimicrobial agent on its surface, preferably a zeolite. Preferred zeolites are described to contain antibiotic metal ions, such as those obtained through ion-exchange. Barry is not concerned with delivery of nitric oxide by zeolites of any sort, nor does Barry describe or even remotely suggest a zeolite, or any other material for that matter, for storing and subsequently releasing nitric oxide - from a stent or from any other article, let alone a mechanism by which such storage and release could effectively be achieved.

Thus, for the reasons articulated previously, Barry fails to make up the deficiencies of Zhang and Green. That is to say, the combination of Barry, Zhang, and Green fails to suggest a zeolite composition for storage and subsequent release of nitric oxide having the features set forth in the Applicant's claims as presented herein.

Withdrawal of Rejection 3 is therefore respectfully requested.

Rejection 4: The Examiner has rejected claims 1, 5, 6, 44, 46 and 49-52 under 35 U.S.C. §103(a) as allegedly being unpatentable over Yamamoto in view of Rudolf et al. (Journal of Magnetic Resonance, 2002, 155, pp. 45-56) and Green.

This combination of references of references fails to render obvious the rejected claims for at least the following reasons. Yamamoto describes merely a deodorizing. composition comprising an antibacterial zeolite having all or part of its ion-exchangeable ions exchanged with ammonium ions and antimicrobial metal ions, and (ii) silicone (e.g., silicone oil or volatile silicone), blended together. Yamamoto fails to describe or suggest a zeolite having the features recited in the pending claims. To this end, the Examiner has relied upon the combination of Rudolf and Green make up for the shortcomings of Yamamoto to arrive at the zeolites of the Applicant's claims. While Rudolf does describe zeolites having an LTA-type framework, and Green describes the cytostatic/cytotoxic effect of nitric oxide releasing compounds - neither reference, when considered either singly or in combination, suggests a zeolite comprising extra-framework atoms effective to bind and store nitric oxide, whereby release of the nitric oxide occurs by chemical displacement by water molecules upon exposure of the composition to moisture, and (iii) chemical

displacement of nitric oxide from a zeolite of any sort under room or body temperature conditions. Thus, the combination of references fails to render obvious the subject claims.

In view of the foregoing, the Applicant respectfully requests withdrawal of Rejection 4.

Rejection 5: The Examiner has rejected claims 1, 5, 44, 45, 47, 48 and 50-52 under 35 U.S.C. §103(a) as allegedly unpatentable over Barry et al. (US 2000/64506 A 1) in view of Rudolf and Green. The shortcomings of the combination of Rudolf and Green are described under the rebuttal to Rejection 4 above. Moreover, the Examiner has acknowledged that the zeolite employed by Barry does not meet the requirements of the claims. For at least these reasons, and in view of the additional arguments and characterizations of the art provided above, it is submitted that claims 1, 5, 44, 45, 47, 48 and 50-52 are non-obvious in view of the combination of Barry, Rudolf and Green.

Withdrawal of Rejection 5 is therefore respectfully requested.

In sum, the combination of references relied upon by the Examiner in each of Rejections 1-5 clearly fails to bridge the gap between the content therein and the Applicant's claims. For at least the reasons provided herein, it is submitted that the claims currently pending are non-obvious in view of the art of record, and comply with the requirements of 35 U.S.C. \$103.

Withdrawal of all outstanding rejections of the claims under 35 U.S.C. §103 is respectfully requested.

# VI. Request for Examiner Interview

During the course of prosecution, the Applicant has made an earnest attempt to clarify the language of the claims, carefully study the art relied upon, and provide detailed arguments in support of the patentability of the claims in order to advance prosecution in this application. Should the Examiner not find the Applicant's arguments in favor of the

Attorney Docket No: 15411-8007

U.S. Appl.: 10/562.401

patentability of the instant claims persuasive, the Applicant requests a telephonic interview with the Examiner prior to the issuance of a final Office action to facilitate allowance of claims in this application.

#### VII. Conclusion

In view of the foregoing amendments and arguments presented herein, it is submitted that the current claims comply with the standards of patentability. Withdrawal of all outstanding rejections is respectfully requested, and issuance of a Notice of Allowance is therefore earnestly solicited. If a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 590-1918.

Respectfully submitted.

Date: May 23, 2011

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